



Darlington Incorporated

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Darlington Incorporated is a rapidly growing communications company that specializes in the design, integration and field support of satellite communications systems, IT LAN's and WAN's, command and control, and land mobile radio systems.

On March 11, 2003 Darlington was purchased by EDO Corporation, a world leader in supplying engineering products, including advanced electronics, electromechanical, and information systems.

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SBIR Investment: \$850K

Non-SBIR Investment: \$20M

Combined Operations Wide Area Network (COWAN) Technology



About the Technology

Darlington developed analytical structures to provide the New Attack Submarine (NSSN) commander's with the means of directing and controlling the operation of combat resources to achieve tactical objectives within the operational environment at near real time speed. The technology uses Intelligent Broker (IB) software to instantaneously configure reusable components into knowledge systems through the World Wide Web. These IBs operate in the realm of "middleware," interacting with new design information requirements and data from legacy systems. The technology defines, analyzes, and evaluates information movement and management (IM&M) data within subsystems thereby increasing data interoperability and maximizing data sharing opportunities.

Benefits to SPAWAR and other DOD Programs

The combat system communications technology developed for the NSSN tested so successfully that SPAWAR contracted with Darlington to expand these techniques and technologies to a Combined Operations Wide Area Network (COWAN). COWAN prescribes better information management practices, technologies and integration opportunities and allows for increases in both speed and bandwidth in electronic communications and network operations conducted in any location.

COWAN enables the Navy to introduce these new capability requirements through the introduction of "vertical subsystems." Related C4I engineering projects such as Portal Casting and the integration of new bandwidth accelerator technologies will realize the goal of wideband high quality IT services to ships at sea.

Why COWAN Improves Technology

- Uses IB's interfacing with the World Wide Web for faster access and transfer of information.
- Improves decision support information.
- Accommodates new information sources without major changes.
- Guides future development of communication systems.
- Provides design direction for interfacing subsystems within the existing overall system.
- Leads to huge cost savings immediately and in the future.

Military and Commercial Significance

- Supports a broad range of military and commercial applications resident on LANs and WANs.
- COWAN data systems and training modules developed for coalition operations have the potential for use by other government and non-government agencies for disaster relief and other humanitarian operations.

